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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,726	09/30/2003	Joshua S. Allen	RSW920030148US1 8152-0036	6352

52023 7590 03/05/2012

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ART UNIT	PAPER NUMBER
2444	

NOTIFICATION DATE	DELIVERY MODE
03/05/2012	ELECTRONIC

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/675,726
Filing Date: September 30, 2003
Appellant(s): ALLEN ET AL.

IBM Incorporation
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 11/14/2011 appealing from the Office action mailed 8/16/2011.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims 24-27, 29-32, 34-37, 39-44.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the

subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

20020116234	Nagasawa	8-2001
20050177629	Betge	9-2003
7437449	Monga	8-2001

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim(s) 34-37 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Said claim discloses a "machine readable storage". Both said claim and the respective specification ([3]) fail to disclose whether said "machine readable storage" is limited to a non-transitory medium or transitory propagating signal. Reading said claim under the broadest reasonable interpretation "machine readable storage" is considered to read on a transitory propagating signal.

See the "Subject Matter Eligibility of Computer Readable Media" (1351 OG 212 – Feb. 23, 2010). A claim reciting only a musical composition, literary work, compilation of data, signal or legal document per se does not appear to be a process, machine, manufacture, or composition of matter. See MPEP § 2106. Thus, both said claim and said specification fail to define said "machine readable storage" to be statutory media.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 24-27, 29-32, 34-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagasawa (United States Patent Application Publication 20020116234) in view of Betge (United States Patent Application Publication 20050177629).

Regarding claim 24,

Nagasawa teaches a computer hardware system for estimating a service level agreement (SLA) breach value for a resource, comprising:

a performance history database including historical performance data for the resource; and **(See figures 1-2 and paragraphs [0058] – [0062], Nagasawa teaches a database containing performance data for resources)**

at least one computer hardware device coupled to the performance history database, wherein the at least one computer hardware device is configured to: **(See paragraphs [0047] – [0051], Nagasawa teaches a computer coupled to the database)**

retrieve the historical performance data for the resource, and **(See paragraphs [0058] – [0062], Nagasawa teaches retrieving performance data for the resource)**

Nagasawa does not explicitly teach generate the estimated SLA breach value by processing the historical performance data for the resource.

Betge teaches generate the estimated SLA breach value by processing the historical performance data for the resource. **(See figures 1-4 and paragraphs [0043] – [0051], Betge. This section teaches "It includes firstly a first calculation module 3 adopted to determine a network usage *predictive state* from first data representative, firstly, of network resource usage measurements and, secondly, of measurements of service usage within the network. These measurements are preferably not only the latest ones obtained but also those obtained in the post [past] (in a chosen time interval)... The *predictive state* delivered by the aggregation module 8 is preferably a service level agreement usage predictive profile obtained by aggregating all service level agreement usage profiles, extrapolated from the first data received from the network, and then taking into account third data representative of future requirements. In fact, as previously indicated, the service level agreements consist of one or more service level specifications that define all technical parameters of the service *(and the***

thresholds to be guaranteed). **Each of these parameters is generally a real number whose value is *estimated* as a function of time, so that the record of a parameter generally takes the form of a curve.", sla threshold/breech values are determined using current and historical data for a resource)**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have known to combine the teachings of Betge with Nagasawa because both deal with optimizing resources and SLA within a network system. The advantage of incorporating generate the estimated SLA breach value by processing the historical performance data for the resource of Betge into Nagasawa is that allows optimum development of network configurations avoiding both over dimensioning and failure to meet SLAs (Service Level Agreements). It allows creation of planning proposals based on both network data and customer resource and service requirements thus making the system more robust and efficient. **(See paragraphs [0005] - [0008], Betge)**

Regarding claim 25,

Nagasawa and Betge teach the computer hardware system of claim 24, wherein the at least one computer hardware device is configured to build a SLA. **(See paragraphs [0048] – [0050], [0078], Betge)** See motivation to combine for claim 24.

Regarding claim 26,

Nagasawa and Betge teach the computer hardware system of claim 24, wherein the at least one computer hardware device is configured to generate a chart, the chart includes the historical performance data for the resource and a current SLA breach value setting. **(See paragraphs [0070] – [0078], Betge)** See motivation to combine for claim 24.

Regarding claim 27,

Nagasawa and Betge teach the computer hardware system of claim 26, wherein the at the at least one computer hardware device is configured to receive a proposed SLA breach value setting and regenerate the chart to included the proposed SLA breach value setting. **(See paragraphs [0048] – [0050], [0078], Betge)** See motivation to combine for claim 24.

Regarding claim 29,

Nagasawa teaches a method for estimating a service level agreement (SLA) breach value for a resource, comprising: **(See abstract, Nagasawa)**

retrieving historical performance data for the resource from a performance history database; **(See figures 1-2 and paragraphs [0058] – [0062], Nagasawa teaches a database containing performance data for resources)**

Nagasawa does not explicitly teach generating, with a computer hardware system, the estimated SLA breach value by processing the historical performance data

for the resource; and displaying, using the computer hardware system, the estimated SLA breach value.

Betge teaches generating, with a computer hardware system, the estimated SLA breach value by processing the historical performance data for the resource; and . **(See paragraphs [0046] – [0050], Betge)**

displaying, using the computer hardware system, the estimated SLA breach value. . **(See paragraphs [0046] – [0050], Betge)**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have known to combine the teachings of Betge with Nagasawa because both deal with optimizing resources and SLA within a network system. The advantage of incorporating generating, with a computer hardware system, the estimated SLA breach value by processing the historical performance data for the resource; and displaying, using the computer hardware system, the estimated SLA breach value of Betge into Nagasawa is that allows optimum development of network configurations avoiding both over dimensioning and failure to meet SLAs (Service Level Agreements). It allows creation of planning proposals based on both network data and customer resource and service requirements thus making the system more robust and efficient. **(See paragraphs [0005] - [0008], Betge)**

Regarding claim 30,

Nagasawa and Betge teach the method of claim 29, wherein the historical performance data is based upon an aggregation of customers accessing the resource. **(See paragraphs [0047] – [0049], Betge)** See motivation to combine for claim 29

Regarding claim 31,

Nagasawa and Betge teach the method of claim 29, wherein the historical performance data is based upon a single specific customer accessing the resource. **(See paragraphs [0023] – [0026], Betge)** See motivation to combine for claim 29

Regarding claim 32,

Nagasawa and Betge teach the method of claim 29, wherein the generating comprises identifying an SLA breach value trend based upon the historical performance data; and predicting a future SLA breach value based upon the trend. **(See paragraphs [0048] – [0050], [0078], Betge)** See motivation to combine for claim 29.

Regarding claim 34,

Nagasawa teaches a machine readable storage having stored therein computer program code for estimating a service level agreement (SLA) breach value for a resource, the computer program code, which when executed by a computer hardware system, causes the computer hardware system to perform: **(See abstract, Nagasawa)**

retrieving historical performance data for the resource from a performance history database; **(See figures 1-2 and paragraphs [0058] – [0062], Nagasawa teaches a database containing performance data for resources)**

Nagasawa does not explicitly teach generating, with a computer hardware system, the estimated SLA breach value by processing the historical performance data for the resource; and displaying, using the computer hardware system, the estimated SLA breach value.

generating, with a computer hardware system, the estimated SLA breach value by processing the historical performance data for the resource; and **(See paragraphs [0046] – [0050], Betge)**

displaying, using the computer hardware system, the estimated SLA breach value. **(See paragraphs [0046] – [0050], Betge)**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have known to combine the teachings of Betge with Nagasawa because both deal with optimizing resources and SLA within a network system. The advantage of incorporating generating, with a computer hardware system, the estimated SLA breach value by processing the historical performance data for the resource; and displaying, using the computer hardware system, the estimated SLA breach value of Betge into Nagasawa is that allows optimum development of network configurations avoiding both over dimensioning and failure to meet SLAs (Service Level Agreements). It allows creation of planning proposals based on both network data and customer

resource and service requirements thus making the system more robust and efficient. **(See paragraphs [0005] - [0008], Betge)**

Regarding claim 35,

Nagasawa and Betge teach the machine readable storage of claim 34, wherein the historical performance data is based upon an aggregation of customers accessing the resource. **(See paragraphs [0047] – [0049], Betge)** See motivation to combine for claim 29

Regarding claim 36,

Nagasawa and Betge teach the e machine readable storage of claim 34, wherein the historical performance data is based upon a single specific customer accessing the resource. **(See paragraphs [0023] – [0026], Betge)** See motivation to combine for claim 29.

Regarding claim 37,

Nagasawa and Betge teach the machine readable storage of claim 34, wherein the generating comprises identifying an SLA breach value trend based upon the historical performance data; and predicting a future SLA breach value based upon the trend. **(See paragraphs [0048] – [0050], [0078], Betge)** See motivation to combine for claim 29.

4. Claims 39-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagasawa (United States Patent Application Publication 20020116234) in view of Betge (United States Patent Application Publication 20050177629) further in view of Monga (U.S. Patent Number 7437449).

Regarding claim 39,

Nagasawa and Betge teach the computer hardware system of claim 24.

Nagasawa and Betge do not explicitly teach wherein the at least one computer hardware device is configured to generate, using a compliance percentage, the estimated SLA breach value.

Monga teaches wherein the at least one computer hardware device is configured to generate, using a compliance percentage, the estimated SLA breach value. **(See column 2, lines 15-35, Monga teaches "interact with a service provider to negotiate "replacement" services for a breach of the SLA, interact with various network elements to rectify a breach of the SLA, interact with the service provider to dynamically modify the SLA based upon changing user requirements")**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have known to combine the teachings of Monga with Nagasawa and Betge because both deal with service level agreements and breaches. The advantage of incorporating wherein the at least one computer hardware device is configured to generate, using a compliance percentage, the estimated SLA breach value of Monga into Nagasawa and Betge is that the system interacts with the network

to obtain and manage various communication services for the user based upon predetermined parameter thus making the system more robust and efficient. **(See column 1, Monga)**

Regarding claim 40,

Nagasawa and Betge teach the computer hardware system of claim 24.

Nagasawa and Betge do not explicitly teach wherein the estimated SLA breach value is a predicted value by which a predetermined compliance percentage can be achieved by employing the estimated SLA breach value with a service level agreement associated with the resource.

Monga teaches wherein the estimated SLA breach value is a predicted value by which a predetermined compliance percentage can be achieved by employing the estimated SLA breach value with a service level agreement associated with the resource. **(See column 2, lines 15-35 and column 4 lines 25-40, Monga)**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have known to combine the teachings of Monga with Nagasawa and Betge because both deal with service level agreements and breaches. The advantage of incorporating wherein the estimated SLA breach value is a predicted value by which a predetermined compliance percentage can be achieved by employing the estimated SLA breach value with a service level agreement associated with the resource of Monga into Nagasawa and Betge is that the system interacts with the network to obtain and manage various communication services for the user based upon

predetermined parameter thus making the system more robust and efficient. **(See column 1, Monga)**

Regarding claim 41,

Nagasawa and Betge teach the method of claim 29.

Nagasawa and Betge do not explicitly teach wherein the generating comprise receiving a compliance percentage; and computing said estimated SLA breach value based upon the compliance percentage.

Monga teaches wherein the generating comprise receiving a compliance percentage; and computing said estimated SLA breach value based upon the compliance percentage. **(See column 2, lines 15-35, Monga teaches "interact with a service provider to negotiate "replacement" services for a breach of the SLA, interact with various network elements to rectify a breach of the SLA, interact with the service provider to dynamically modify the SLA based upon changing user requirements")**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have known to combine the teachings of Monga with Nagasawa and Betge because both deal with service level agreements and breaches. The advantage of incorporating wherein the generating comprise receiving a compliance percentage; and computing said estimated SLA breach value based upon the compliance percentage of Monga into Nagasawa and Betge is that the system interacts with the network to obtain and manage various communication services for the user

based upon predetermined parameter thus making the system more robust and efficient. **(See column 1, Monga)**

Regarding claim 42,

Nagasawa and Betge teach the method of claim 29,

Nagasawa and Betge do not explicitly teach wherein the estimated SLA breach value is a predicted value by which a predetermined compliance percentage can be achieved by employing the estimated SLA breach value with a service level agreement associated with the resource.

Manga teaches wherein the estimated SLA breach value is a predicted value by which a predetermined compliance percentage can be achieved by employing the estimated SLA breach value with a service level agreement associated with the resource. **(See column 2, lines 15-35 and column 4 lines 25-40, Monga)**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have known to combine the teachings of Monga with Nagasawa and Betge because both deal with service level agreements and breaches. The advantage of incorporating wherein the estimated SLA breach value is a predicted value by which a predetermined compliance percentage can be achieved by employing the estimated SLA breach value with a service level agreement associated with the resource of Monga into Nagasawa and Betge is that the system interacts with the network to obtain and manage various communication services for the user based upon

predetermined parameter thus making the system more robust and efficient. **(See column 1, Monga)**

Regarding claim 43,

Nagasawa and Betge teach the machine readable storage of claim 34.

Nagasawa and Betge do not explicitly teach wherein the generating comprises receiving a compliance percentage; and computing said estimated SLA breach value based upon the compliance percentage.

Monga teaches wherein the generating comprises receiving a compliance percentage; and computing said estimated SLA breach value based upon the compliance percentage. **(See column 2, lines 15-35, Monga teaches "interact with a service provider to negotiate "replacement" services for a breach of the SLA, interact with various network elements to rectify a breach of the SLA, interact with the service provider to dynamically modify the SLA based upon changing user requirements")**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have known to combine the teachings of Monga with Nagasawa and Betge because both deal with service level agreements and breaches. The advantage of incorporating wherein the at least one computer hardware device is configured to generate, using a compliance percentage, the estimated SLA breach value of Monga into Nagasawa and Betge is that the system interacts with the network to obtain and manage various communication services for the user based upon

predetermined parameter thus making the system more robust and efficient. **(See column 1, Monga)**

Regarding claim 44,

Nagasawa and Betge teach the machine readable storage of claim 34.

Nagasawa and Betge do not explicitly teach wherein the estimated SLA breach value is a predicted value by which a predetermined compliance percentage can be achieved by employing the estimated SLA breach value with a service level agreement associated with the resource.

Monga teaches wherein the estimated SLA breach value is a predicted value by which a predetermined compliance percentage can be achieved by employing the estimated SLA breach value with a service level agreement associated with the resource. **(See column 2, lines 15-35 and column 4 lines 25-40, Monga)**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have known to combine the teachings of Monga with Nagasawa and Betge because both deal with service level agreements and breaches. The advantage of incorporating wherein the estimated SLA breach value is a predicted value by which a predetermined compliance percentage can be achieved by employing the estimated SLA breach value with a service level agreement associated with the resource of Monga into Nagasawa and Betge is that the system interacts with the network to obtain and manage various communication services for the user based upon

predetermined parameter thus making the system more robust and efficient. **(See column 1, Monga)**

(10) Response to Argument

As per appellant, "Based upon the above arguments, a proper claim construction of the term "storage" does not encompass a transitory, propagating signal, per se. Instead, the claimed "storage" constitutes statutory subject matter within the meaning of 35 U.S.C. § 101. Specifically, the "storage" constitutes either a manufacture or an improvement to a machine (i.e., a computer). ."(Argument 101, See brief page 19 lines 13-17).

In response to 101), In response to applicant's argument, Examiner respectfully disagrees. Applicant's specification makes no mention of what a "machine readable storage" constitutes. Therefore, Examiner's broadest readable interpretation includes non-statutory subject matter and specifically includes a signal per se. A signal can store data and can be read by a machine. It is therefore the interpretation of the Examiner that since no definition is provided for the "machine readable storage", it could clearly include non-statutory subject matter, and therefore the rejection is maintained.

As per appellant, the prior art does not teach the "estimated SLA breach value by processing the historical performance data for the resource"(Argument A, See brief page 30 line 30 – page 31 line 5 [pages 25-31]).

In response to A), In response to applicant's argument, Examiner respectfully disagrees. Examiner points to figures 1-4 and paragraphs [0005] – [0010], [0043] – [0051], Betge. This section teaches "The first calculation means advantageously determine service level agreement usage profiles from the first data and the service level agreements (preferably a profile for each service level agreement), for example using a trend evolution analysis technique. The first consists in defining link bandwidth usage thresholds and/or router congestion indication thresholds so that in the event of violation of said thresholds the network manager is advised that the network needs to evolve… It includes firstly a first calculation module 3 adopted to determine a network usage *predictive state* from first data representative, firstly, of network resource usage measurements and, secondly, of measurements of service usage within the network. **These measurements are preferably not only the latest ones obtained but also those obtained in the post [past] (in a chosen time interval)**… The *predictive state* delivered by the aggregation module 8 is preferably a service level agreement usage predictive profile obtained by aggregating all service level agreement usage profiles, extrapolated from the first data received from the network, and then taking into account third data representative of future requirements. In fact, as previously indicated, the service level agreements consist of one or more service level specifications that define all technical parameters of the service *(and the thresholds to be guaranteed)*. Each of these parameters is generally a real number whose value is *estimated* as a function of time, so that the record of a parameter generally takes the form of a curve."

This section teaches that service level agreement thresholds/breach values are determined using the predictive state information which is made up of current and past/historical network resource usage. The past information is utilized to determine a user or users activity with regards to a resource and this is used to obtain an accurate service level agreement and also to predict future resource use. Furthermore the thresholds/breach values are determined from estimated values and are therefore estimated thresholds/breach values. This is clear because if the values that make up the breach value/thresholds are estimates, then the breach value/thresholds are also estimates. The prior art teaches estimated breach value based on historical performance data for the resource.

Furthermore, it is clear from the above sections that the parameters that make up a service level agreement are based on estimated values. One of the core values in a SLA contract is the thresholds or breach values which dictate how much of a resource a user can use. It is therefore further clear that since the values of the SLA are estimated, the threshold or breach values which are these values or based on these values are also estimated.

The claim limitations are clearly taught by the prior art of record.

As per appellant, "none of the Examiner's cited passages within Betge-Brezetz refer to (i) a chart; (ii) historical performance data for the resource; and (iii) a current SLA breach value setting."(Argument B, See brief page 32 lines 1-11).

In response to B), In response to applicant's argument, Examiner respectfully disagrees. Examiner points to figures 3-4, and paragraphs [0066] – [0071], [0072] – [0076], Betge teaches a chart with a "a first portion A, shown in continuous line, representing the evolution of the traffic measured as a function of time, and a second portion B, shown in dashed line, representing the predicted evolution of the traffic as a function of time". The evolution of the, portion A, of the chart is clearly historical performance data for the resource. This section further teaches " threshold S set by the rules of the planning database 14. On the other hand, the load evolution prediction B of the connection between the core routers R1 and R2 indicates that its future load will exceed the maximum threshold S set by the rules of the planning database 14." The S value represents the maximum threshold/breach value for the resource based on the rules in the database.

Clearly a chart is provides with historical performance data for a resource and a SLA threshold/breach value which defines the maximum threshold set by the rules of the planning database. A chart with historical data and an SLA breach/threshold value is encompassed by both figures 3 and 4 of the reference as well as in the cited references above. These figures show a chart with historical performance data for the resource and an SLA breach/threshold value.

The claim limitations are clearly taught by the prior art of record.

As per appellant, "Appellants have reviewed the Examiner's cited passages and have found no mention of "a single specific customer accessing the resource" or even of a "single specific customer." (Argument C, See brief page 32 lines 18-21).

In response to C), In response to applicant's argument, Examiner respectfully disagrees. Examiner points to paragraphs [0005], [0013], [0038], [0046] -[0048], [0050] -[0055], "The second solution consists in carrying out market research to *estimate how customer requirements are evolving* and to deduce how the network should evolve… Thus the system can determine a (re)planning proposal that is particularly accurate since it takes into account, firstly, *the information (or parameters) representative of the network performance record and, secondly, predicted customer requirements in terms of resources and/or services*". This section teaches estimating how "customer" [singular customer] requirements are evolving for access to a [network resource] which in turn is used to predict how a network should evolve. Therefore metrics about the resource usage of a single specific customer is provided

Furthermore Betge teaches "the first calculation module 3 includes firstly an extraction module 6 capable of generating usage profiles of the service level agreements 7 from first data supplied in particular by the core routers Ri of the network and service level agreements between the network operator and its customers. The extraction module 6 preferably generates a usage profile for each SLA". A network consisting of a number of customers generates usage (each customer has a usage profile) profiles of the service level agreements. Each of the customers has an individual

usage profile which is generated based on the single customer's resource usage/accessing and used to create efficient service level agreements between the singular customer and the network.

Next, Examiner points to paragraphs [0011] - [0015], which teach ""first data" means network performance data such as current and old data on resource and/or service usage... The first calculation means advantageously determine service level agreement usage profiles from the first data and the service level agreements (preferably a profile for each service level agreement), for example using a trend evolution analysis technique..." This section teaches resource and usage data being collected which for a number of usage profiles. Each of these usage profiles is for a single customer. Therefore the usage profiles include data about "a single specific customer accessing the resource".

Finally if a network collects resource data for a plurality of customers, it is clear that the same method is used to collect resource data for a singular customer when the plurality of customers equals 1 customer.

It is clear that Betge teaches "a single specific customer accessing the resource" in a number of different sections and thus the claim limitations are clearly taught by the prior art of record. "a single specific customer accessing the resource".

As per appellant, "Appellants have reviewed the Examiner's cited passages and have found no mention of a SLA breach value trend being identified" (Argument D, See brief page 33 lines 6-8).

In response to D), In response to applicant's argument, Examiner respectfully disagrees. Examiner points to paragraphs [0014], [0025] – [0027], [0045] – [0048], [0069] – [0073], claim 7, and figures 3-4, Betge teaches "The extraction module 6 preferably generates a usage profile for each SLA. Furthermore, the first data representing a record of network performance measurements, the extraction module 6 preferably generates usage profiles of the service level agreements 7 by extrapolation, using a trend evolution analysis technique. The extraction module 6 also delivers predictive or nonpredictive alarms, if an event occurs or risks occurring, based on analyzing the measurements and the measurement records... Once the extraction module 6 has generated its usage profiles of the service level agreements 7, it communicates them to an aggregation module 8 of the first calculation module 3. This module determines the network usage predictive state from the usage profiles of the service level agreements 7 in particular".

The network usage predictive state is determined from usage profiles of the service level agreements. The usage profiles include information about the relationship between the customer and the network resource and how and when the resource was used. The trends of the usage profiles are used to determine future usage and also to create future service level agreements. These trends include the trends of the thresholds/breach values of the SLA. It is from these trends that the optimized SLA threshold/breach values are determined for future resource use.

Furthermore these sections teach " the load evolution prediction B of the edge routers ERj is still relatively far away from the maximum load threshold S set by the rules of the planning database 14. On the other hand, the load evolution prediction B of connection between the core routers R1 and R2 indicates that its future load will exceed the maximum threshold S set by the rules of the planning database 14. The traffic engineering module 12 determines an optimum configuration corresponding to the predictions made, allowing for the existing network. The validation module 11 then verifies if the existing network can support that configuration. In this example, as indicated above, the overload cannot be resolved by redistributing traffic between R1 and R2 on other links, since they would then reach their limits. Consequently, the validation module 11 deduces that there is a risk of an overload occurring at the core routers R1 and R2 and their connection, within the time period concerned. It therefore sends the planning module 13 the designations of the core routers R1 and R2 and their connection, for it to produce a planning proposal likely to alleviate the overload."

This section teaches that a maximum threshold/breach will be reached in the future. This trend information is used to produce a planning proposal which can alter the maximum threshold value/breach value. This information is used to [0078], " allows the network manager to define better the terms of the service level agreements (SLA) that it has to enter into with its future customers, taking account of the existing network, and the terms of the service level agreements that it must enter into with its future customers after the network has been modified."

As a side note, Examiner has searched the Monga reference, which was not relied upon, but which teaches (column 20 lines 33-44), "the off-line analysis might identify a time of day at which the SLA tends to breach the SLA on a regular basis." Again this section clearly teaches a SLA breach value trend, in particular the time of day that relates to when an SLA breach occurs.

The claim limitations are clearly taught by the prior art of record.

As per appellant, "Both the Examiner's stated analysis and cited passage fails to mention/teach the claimed "compliance percentage." ""proposing an estimate SLA breach value" (Argument E, See brief page 34 lines 17-22, 24-27).

In response to E), In response to applicant's argument, Examiner respectfully disagrees. Examiner points to

"The OSA may also gather and maintain statistical information for off-line analysis of SLA compliance on behalf of the OSA-enabled user. Specifically, the OSA may store statistical information it obtains from monitoring the connection, querying the ASON, and querying the peer OSA-enabled users, such as the number of rejected calls and the number of dropped packets. The OSA can then use the stored statistical information for off-line analysis. Such off-line analysis can be used not only to detect breaches of SLA, but also to identify patterns or trends that relate to SLA. For example, the off-line analysis might identify a time of day at which the SLA tends to breach the

SLA on a regular basis... Beginning at block 2402, the OSA may monitor the connection for real-time analysis of SLA compliance on behalf of the OSA-enabled user, in block 2404. The OSA may gather and maintain statistical information for off-line analysis of SLA compliance on behalf of the OSA-enabled user, in block 2406. The OSA may interact with the service provider to enforce penalty provisions in the SLA on behalf of the OSA-enabled user, in block 2408. The OSA may interact with the service provider to negotiate a credit for services not provided by the service provider, in block 2410."

This section teaches an SLA compliance which is statistical information obtained from the monitoring of the connection, querying the ASON, and querying the peer OSA-enabled users, such as the number of rejected calls and the number of dropped packets. The SLA compliance is the time for which an SLA has not been breached or is compliant. Furthermore, the SLA compliance takes into account the number of rejected calls and the number of dropped packets. Since the SLA compliance is measured, the compliance would be the number of calls which were compliant and were not rejected. Therefore if a 100 calls were made, and 10 calls were rejected, the SLA compliance would be 90 calls and the "compliance percentage" would simply be (90/100)*100 which would be 90% compliance. SLA compliance is a rate of compliance for the network resource. Therefore the SLA compliance would contain the same information as an SLA compliance percentage just in a different mathematical form.

Furthermore an SLA "proposing an estimate SLA breach value" is shown above in the response to Argument A.

The claim limitations are clearly taught by the prior art of record.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/N. D./
Examiner, Art Unit 2444

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